

Man on the spot

Richard Robb talks about his business – a hedge fund that invests in structured credit and wind energy – teaching at Columbia University and his views on crises past and present



Photo: Stephen Sullivan

Résumé

- 1981 BA Economics: Duke University
- 1985 PhD Economics: University of Chicago
- 1985 – 1992: The Chicago Corporation – bond sales and trading
- 1992 – 2001: The Dai-Ichi Kango Bank – head of global derivatives and securities businesses (NY, London, Hong Kong)
- 2001 – present: professor of professional practice in international finance, Columbia University's School of International & Public Affairs
- 2002 – present: ceo, Christofferson, Robb & Company

Q What does Christofferson, Robb & Company (CRC) do?

A Our core business is investing in asset-backed securities and private structured credit transactions that help European banks transfer risk and improve their balance sheets or their return on regulatory capital. Working with a single buyer, terms can be fine-tuned to meet the issuer's needs.

We are not traders or arbitrageurs but, rather, buy-and-hold investors. Underneath it all are old-fashioned assets: small and medium enterprise loans, prime residential mortgages, commercial leases or other loans on a bank's balance sheet.

Q How did you start up a fund like that?

A We were not a fancy start-up. In October 2002, Johan Christofferson and I launched with \$11m under management.

In New York, we sub-let an office and part of a hallway across from Bloomingdale's. In London, we had a mews house near Earls Court. Our IT head, Oleg Gokhman, financed the computers on his personal credit card.

As soon as we launched, we registered with the US SEC, which requires \$25m under management within 90 days. We didn't think that would be a problem, but it turned out that it was...

We visited about 100 investors in Europe and the US to explain the opportunities in European structured credit. Many were surprised to learn that Europe had a structured credit market at all. At best, investors would say: "You will be a safer investment at \$50m than \$11m. You will be more diversified and have better access to financing. I will take you from \$50m to \$70m."

So there were two stable equilibria: a good one and a bad one. Given that no-one wanted to invest, no-one else wanted to invest. Given that everyone else wanted to invest, the others were happy to come in. We were stuck in the bad equilibrium. Looking back on it, the mews house probably didn't help.

At the darkest moment, we faced the embarrassing prospect of de-registering from the SEC because our 90 days had lapsed and we were still too small. Our original investor was making noises about getting their money back.

Then the SEC kindly gave us a one-month extension. Luckily, a new investor swooped in with \$40m in the nick of time. Other investors fell into place, and here we are today.

During the first year, we grew to a dozen employees in New York and London. Only a few of the junior employees who needed money to live were able to take salaries.

By the end of 2003, we had about \$100m. We realised we had crossed a certain threshold when we began buying napkins from the store rather than stealing paper towels from the building's men's room.

We have grown in spurts since 2003 as opportunities arose. During most of 2006 and the first half of 2007, we were closed to new investment because the portfolio threw off cash about as fast as we could invest it. Lately we have found more opportunity and we have been able to increase the size of our fund.

Q How much do you manage?

A We say it's a secret, but anyone can go to the NASD's website to see assets under management for a registered fund. Our credit fund's NAV is about \$1.2bn and we now also have a wind energy fund that accounts for slightly less than half that amount again.

Q Structured credit funds have suffered huge losses during the credit crisis – why hasn't CRC?

A That's FAQ #1 these days. I have my response ready to go. I'll give you the medium-length version. There is no short version, because it's not a simple fund, but maybe this will be interesting to your readers and give some insight into our strategy.

Nearly all of the fund's deals follow a simple formula: (i) a European bank originates assets in the normal course of its business with an intent to retain the assets on its balance sheet; (ii) the bank then determines that it can reduce regulatory capital requirements or improve its financial statements by transferring a portion of the risk to an end investor; (iii) the bank and CRC work directly to optimise the benefits to the bank while incorporating structural protections that are important to CRC.

While this approach to sourcing deals is not a sufficient condition for stable returns for the fund, it goes part of the

way towards insulating us from end-of-cycle products sold by financial intermediaries (such as sub-prime originators or leveraged loan CLO managers) that compete for the same assets and package them to appeal to investors.

We used to say the fund was built to withstand "turmoil like 1998" – an expression that seems quaint today. Structurally, the fund was resilient during the crisis due to light leverage and term funding.

We are only leveraged 1.6 times (\$1 of capital supports \$1.6 in assets) and approximately 93% of the fund's on-balance-sheet funding is in a term structured repo that matures in 2012. The fund's small amount of short-term repo proved to be unreliable.

Equally, our stable investor base has been key. CRC has taken care to assemble a diversified, sophisticated investor base that would stay cool during market strains. Our precautions paid off during the crisis, since investors redeemed a total of only \$35m in the second half of 2007, which is equivalent to about one month's free cash flow.

[For more on this see box on page 12]

Q How did you get involved in wind energy?

A In 2005 we started looking at a securitisation of loans to wind farms as we felt it was a good fit with CRC's traditional business. We decided that the money to be made at the time, at least in onshore wind, was through owning the farms, not lending to them.

There was an opportunity for a roll-up that would buy a scale portfolio and benefit from efficiencies in operating, maintenance and financing. Once the wind farms are constructed, returns largely depend on how hard the wind blows, producing a return stream that would be highly valued by CRC's investors.

We bought our first onshore German wind farm within the credit fund in July 2005 so that we could learn about how they worked. In the worst case, we were confident we could sell it in a year if we changed our minds about wind. By the spring of 2006, we had acquired 300 megawatts in 29 farms throughout Germany and France.

We repaid our construction debt by issuing a whole business securitisation called CRC Breeze Finance that HVB underwrote. CRC Breeze issued €300m of senior notes rated triple-B by S&P and Fitch and €50m of junior notes rated double-B plus. According to Windpower Monthly, it was the first time the international capital markets had been tapped to finance renewable energy.

The German and French markets lend themselves naturally to securitisation because the grid operator has to buy all the power we can produce at a feed-in tariff that is guaranteed for 20 years. In short, the wind farms of CRC Breeze convert the kinetic energy of the wind to electricity; the grid operator pays a fixed price; the SPV uses the money to pay interest and principal on the rated

debt; and the equity holder receives the distributions left over.

Q You sold the Breeze farms on. Why?

A We sold the Breeze farms plus some other wind assets to International Power in November 2006 for an enterprise value of €576m. International Power is better equipped to supervise these operations than CRC and it paid us a fair price based on the market at the time.

Now valuations of onshore western European wind projects seem quite high to us and there is not much of a place for CRC. Going forward, a bigger opportunity is to become involved early in offshore wind projects throughout Europe.

Q Are you a socially responsible investor?

A No, our motives are purely commercial. It's not CRC's job to engage in charity with teachers' retirement funds. Our role is to figure out how to make the highest returns we can.

We do, however, avoid activities that are inherently parasitic – like life settlements, payday lending or tax arbitrage schemes – but our motive is not social responsibility. These parasitic deals may look OK in principle, and may generate steady returns for long periods of time, but they rest on shaky foundations. Lawmakers have every incentive to change the rules. As an investor, we derive comfort from knowing that wind energy in northern Europe is by far the most efficient way for governments to meet their renewable targets, so wind is likely to prosper for the next decade while engineers try to sort out the other technologies.

Q Why are you teaching at Columbia?

A I have a position of a full professor. I teach one day a week on Tuesdays and I devote Sundays to preparing. The main benefit I derive from teaching is that I learn a lot by doing it.

For example, I teach a class called Advanced Structured Credit that forces me to stay up to date on models. I teach about 350 students a year, so we can recruit for CRC from a large pool of students who are already selected from a much larger pool of applicants.

Further, some of the faculty, particularly Ned Phelps, have had a big influence on me and the way Johan Christofferson and I think about our business.

Q Like what?

A I was trained in neo-classical economics at Chicago, and that continues to shape the way I view the world. I believe that people optimise over reasonably stable preferences,

markets are in equilibrium, and market participants rationally anticipate information that they acquire after engaging in optimal search. But early in my time at Columbia, Ned Phelps, a profoundly original thinker, opened me up to his own work and that of the great Chicago economist, Frank Knight.

I have come to accept that ambiguity surrounds a great deal of decision-making by consumers, new businesses and established businesses. They cannot be meaningfully characterised as maximisation problems subject to fully-specified probability distributions. Two books I can recommend on the subject are 'Imperfect Knowledge Economics' published last year by Roman Frydman and Michael Goldberg, and 'The Venturesome Economy' – forthcoming by Amar Bhidé in September 2008.

This fits with the role I see for hedge funds: hedge funds exist to cope with risks that are, in Richard Zeckhauser's terminology, "unknown and unknowable". Our prospects for excess returns arise precisely because we are encountering novel conditions and allow a small number of senior traders to apply heavy amounts of judgment.

This level of individual discretion would not be possible at a big bank – for instance, DKB could not delegate authority to apply common sense to individuals. A big bank needs process. Senior management can't possibly monitor the calibre of judgment if it lets 50,000 employees act as they please.

To put it another way, at CRC we seek to be what Friedrich Hayek called a "man on the spot", who possesses local and transitory knowledge of circumstances that cannot be easily translated into fixed rules. Our approach hinges on applying the knowledge of a man on the spot alongside quantitative techniques and empirical analysis. In this way we guard against applying historical analysis that has become outdated or misses important features of the deal we are considering.

Q You had a front row seat for the Asian/LTCM crisis working for a Japanese bank. How is the current crisis different?

A The last crisis was also unnerving and, by objective measures, so far just as severe. I never expected Nippon Credit, Long Term Credit Bank, Hokkaido Takushoku Bank and Yamaichi Securities to fail.

This crisis differs from 1998 not just in degree. We have had 10 years for quantitative structured finance, with the full co-operation of the rating agencies, to metastasise. As rating agencies pushed models further and further, the world's most conservative money market investors ended up holding ABCP that hinged on bizarre, simplistic models.

These models lack empirical or theoretical content. The longer the boom lasted, the more rating agencies and

willing investors trumpeted the stability-of-structured-finance-compared-with-corporate credit, and the more investors learned to rely uncritically on ratings.

In the underlying markets, such as leveraged loans, liquidity ensured that LBOs could be refinanced and default rates were minimal. Similar to homeowners who manipulated their FICO scores, banks originated second lien loans and loans that dispensed with maintenance covenants, so they could sell them to CLOs.

Let's look at a simple example. Everyone has heard of Moody's diversity score. It played a crucial role in rating more than a trillion dollars of CLOs.

Do you know how it's computed? Suppose you have a pool of equally sized loans. The diversity score gets one point for the first obligation in each of 33 industry groups

(such as Defence, Automobile, Banking); add 1/2 point for obligations #2 and #3; add 1/3 point for each of obligations #4, #5 and #6; add 1/4 point for each of obligations #7, #8 #9 and #10.

Obligations beyond 10 add nothing at all. And that's the whole thing. In its original application in the binomial expansion technique, a CLO's collateral pool was treated as if it had a number of independent assets equal to the diversity score.

The binomial expansion technique has been largely replaced by a model that is equally flimsy: the Gaussian copula. This is the Merton model with one or a few common factors and one idiosyncratic factor per firm.

If an academic tried to publish this model, any journal would reject it. If a student submitted it as a term paper, it

would probably receive a mediocre grade. The theory isn't interesting; it embodies nothing that resembles economics and it lacks support from data. It does, however, achieve two things: (i) it gives a result; and (ii) it is complicated enough that many investors are willing to assume that something serious must be going on behind the scenes.

I don't have a better model, nor am I waiting for someone to invent one. It's hard enough to estimate a default rate, much less the 'correlation' between two obligations and harder still to determine the dependency between many obligations.

Correlation trading has always struck me as a nutty exercise. Who knows whether 0.1, 0.5 or 0.8 is a low correlation or a high correlation for an index tranche? If 3%-6% has an implied correlation of 0.7 and 6%-9% has an implied correlation of 0.3, that does not tell me that the lower tranche is somehow expensive, because I don't believe the model. Correlation traders develop intuition about these numbers, but is it any different from the intuition of astrologers?

Now, at least at the time of this interview, the lack of confidence in rating agencies has spread to individual names. We can see five-year CDS for single-As priced as narrow as Mitsubishi Electric at 15bp, as wide as CIT at 1100bp and at many levels in between. In addition to the loss of confidence in rating agencies, CLOs no longer exist to buy everything that is cheap to its rating, ensuring that obligors with similar ratings trade at similar spreads.

I expect structured finance triple-A spreads to stay wide for a long time. The old buyers – securities arbitrage ABCP, structured finance CDOs and highly leveraged hedge funds – are never coming back. There are fewer natural buyers of triple-A structured finance at the old spreads. Widening spreads will translate into less plentiful consumer finance in the US and around the world.

More generally, I think the golden age of financial engineering has come to an end. (Of course, universities will continue to teach it for a generation, because students won't figure out that it's over until it's too late.) US sub-prime is only one example.

Q Did you learn anything in 1998 that was useful this time around?

A At DKB International, we continued to underwrite deals in 1998 for Japanese consumer finance companies and provided continuous liquidity on all our existing deals. This paid dividends for us after the crisis wound down.

CRC continued to conduct its normal business with our core customers during the summer of 2007 and again in the first quarter of 2008. In 2008, we are not waiting for the market to stabilise but, rather, we want to be part of the process that does the stabilising. ■

Positive factors

As noted in the main text, CRC's structured credit fund has avoided the severe losses suffered by other funds in the sector. According to Robb, CRC's losses were held in check due to the following factors:

- **No US assets**
- **Almost no exposure to UK RMBS**
The fund's UK mortgage exposure is less than 0.6% versus about 25% for European ABS as a whole.
- **Low exposure to leveraged loans**
The last time the fund bought a CLO backed by leveraged loans was in March 2005. Leveraged loan CLOs make up less than 4% of the portfolio. Most of these were issued five to seven years ago and are relatively untouched by the excesses of covenant-lite and second lien loans.
- **Less than 4% of assets were invested at the market peak**
We would have suffered heavy losses if we had taken advantage of investor demand for structured credit hedge funds to grow AUM in the first half of 2007 and invested in the high-priced assets that were available at the time.
- **Limited effects of rising prepayments in Portugal and Italy**
Parliamentary decrees in Portugal and Italy reduced prepayment penalties on most home mortgages. The fund's RMBS exposure is steadily shrinking (now 21% from a peak of 45% in 2004). The Portuguese mortgages are seasoned (the fund invested in 2004 and 2005 in the residual tranches of deals issued in 2002 composed mostly of mortgages originated in the 1990s), so increases in prepayment were muted. We have only one deal where the prepayment penalties flow through the waterfall. We negotiated a side-letter with the issuer which obligated them to compensate the fund for changes in legislation. Without this side agreement, NAV would have declined by 1.1%.
- **Investments are low on the capital structure**
The fund's tranches are typically subordinate and benefit from explicit or implicit locked-in funding. So far, this has been a liquidity crisis rather than a true credit crisis. Triple-As, for example, have fallen proportionately much more than second loss tranches or residuals.
- **Risk is front-loaded on most of the fund's deals**
In a typical synthetic transaction, the reference pool begins amortising right away or after a replenishment

period. Either way, most of the risk is packed into the early years. Thus, as time passes without realised credit events, the portfolio naturally becomes safer. (The fund's investments typically do not amortise.)

- **The fund uses mid-market pricing**
Although we suspect that more than half the dealers ignore our instructions to price at mid-market and actually supply bid-side pricing, to some extent the mid-market policy cushions the fund against widening bid-ask spreads.
- **Strong cash flows in emerging markets**
These transactions have outperformed European assets and have been marked less viciously by dealers. Emerging markets including Mexico and eastern Europe account for 6.5% of the fund's assets.
- **Effective hedge**
Brad Golding manages an equity fund for CRC that is meant to profit when the most overvalued financial companies fall to earth. This fund's net return was 81% since the beginning of 2007. A portion of our main fund is invested in the equity hedge.



Photo: Stephen Sullivan